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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
TRAN, JIMMY H	
ART UNIT	PAPER NUMBER
2456	
MAIL DATE	DELIVERY MODE
12/07/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/826,268	SUSAI ET AL.	
	Examiner	Art Unit	
	JIMMY H. TRAN	2456	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 June 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-42* is/are rejected.

7)☒ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/26/2009*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This action is in response to communication filed on 6/26/2009.

Claims 22-42 are pending.

No claims have been amended.

Claims 22-42 have been added.

Claims 1-21 were cancelled in response filed 6/26/2009.

Information Disclosure Statement

The information disclosure statement filed 6/26/2009 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. **Claims 22, 26, 27, 33, 36 and 37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Regarding **claims 22 and 33** are rejected under 35 U.S.C. 112, second paragraph, as being

incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01.

The omitted step is the transitional step after determining the current response time, to identifying the client as on-hold is unclear. There is a lack of a clear transitional step from determining the current response time to identifying client as on-hold. It is unclear to the Examiner how after the determination of the current response time, how the transitional step leads the client as identified as on-hold. There is no clear indication specifying that the client current response time must exceed the threshold to be identified as a client on-hold. The limitation merely states "*identifying, by the interface unit, the client as on-hold in response to the determination*" therefore it is unclear to the Examiner whether the current response time must exceed the threshold to consider identifying the client as on-hold.

Regarding **claims 26 and 36** the limitation "*establishment of the waiting time to a code on an on-hold page provided to the client*" renders the claim indefinite because it is unclear what is meant by "*a code*". For the purpose of examination, the Examiner has interrupted *"a code"* as information informing the client the status of the web server.

Regarding **claims 26 and 36** the limitation "*a code to the client*" renders the claim indefinite because it is unclear what is meant by "*a code*". For the purpose of examination, the Examiner has interrupted *"a code"* as information informing the client the status of the web server.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 22, 24-26, 28-29, 31, 33, 35-36, 38-39, and 41 rejected under 35 U.S.C. 102(e) as being anticipated by Abbott et al. (US 6,314,463).

Regarding **claim 22**, Abbott discloses a method executed by an interface unit for putting a client on hold, the method comprising:

(a) intercepting, by an interface unit, a request from a client to access a requested server (see Abbott; fig. 1; a manager **110** uses an interceptor **120** to receive request from users to a web server);

(b) determining, by the interface unit, that a current response time of the requested server exceeds a threshold (see Abbott; col. 26/lines 35-43 the manager is capable of determining a load of the server by comparing if the processing time for a request is greater than the threshold time);

(c) identifying, by the interface unit, the client as on-hold in response to the determination (see Abbott; col. 17/lines 40-49; the manager instructs the interceptor to cease redirection to a

particular network address/port endpoints. This is an effort to reduce the load on that particular web server or host when the web server or host is found to be under heavy load. The client will not be served if no web servers are available and will be informed no servers are available (see Abbott; col. 8/lines 20-28));

(d) establishing, by the interface unit, a waiting time for the client (see Abbott; col. 14/lines 32-40; the manager using an agent **106** can determine what part of the web server's total response time is spent queued for processing, and what part is sent being processed by the web server. This is possible because the agent can receive the time of the request and the duration of the request from the web server. Therefore, a wait time can be determined before the client request can be processed); and

(e) transmitting, by the interface unit, an on-hold request to an on-hold server based upon the waiting time (see Abbott; col. 8/lines 20-28; the manager using the interceptor may redirect clients request upon heavy load of a particular web server. When no web servers can serve clients request, the response time is greater than the threshold and the clients are redirected to a web page indicating no servers are available due to the fact the response time was greater than the threshold to serve clients).

Regarding **claim 24**, Abbott discloses the method of claim 22, wherein step (b) comprises evaluating, by the interface unit, if the determined response time exceeds a guaranteed client-server response time established by the requested server (see Abbott; col. 26/lines 35-43 the manager is capable of determining a load of the server by comparing if the processing time for a request is greater than the threshold time).

Regarding **claim 25**, Abbott discloses the method of claim 22, wherein step (d) comprises determining, by the interface unit, an approximate waiting time for the client based upon the estimated current response time of the requested server (see Abbott; col. 14/lines 32-40; the manager using an agent **106** can determine what part of the web server's total response time is spent queued for processing, and what part is sent being processed by the web server. This is possible because the agent can receive the time of the request and the duration of the request from the web server. Therefore, a wait time can be determined before the client request can be processed).

Regarding **claim 26**, Abbott discloses the method of claim 22, wherein step (d) comprises delegating, by the interface unit, establishment of the waiting time to a code on an on-hold page provided to the client, the code corrects the waiting time based upon a round trip time and a response time provided by the interface unit (see Abbott; col. 14/lines 32-40; the manager using an agent **106** can determine what part of the web server's total response time is spent queued for processing, and what part is sent being processed by the web server. This is possible because the agent can receive the time of the request and the duration of the request from the web server. Therefore, a wait time can be determined before the client request can be processed. Furthermore, a web page indicating no servers available or site temporarily unavailable).

Regarding **claim 28**, Abbott discloses the method of claim 22, wherein step (e) comprises selecting, by the interface unit, the on-hold server from a plurality of on-hold servers based upon

the waiting time or an on- hold preference (see Abbott; col. 23/line 44-54; the manager uses the interceptor to choose which web server will refer a request to based on a load metric determined for each available web server).

Regarding **claim 29**, Abbott discloses the method of claim 22, wherein step (e) comprises generating, by the interface unit, an on-hold request for a web page of the on-hold server (see Abbott; col. 17/lines 40-49; the manager instructs the interceptor to cease redirection to a particular network address/port endpoints. This is an effort to reduce the load on that particular web server or host when the web server or host is found to be under heavy load. The client will not be served if no web servers are available and will be informed no servers are available (see Abbott; col. 8/lines 20-28)).

Regarding **claim 31**, Abbott discloses the method of claim 22 further comprising maintaining, by the interface unit, the client on hold until the response time of the requested server is less than a desired response time specified by a user of the client (see Abbott; col. 17/lines 40-49; the manager instructs the interceptor to cease redirection to a particular network address/port endpoints. This is an effort to reduce the load on that particular web server or host when the web server or host is found to be under heavy load. The client will not be served if no web servers are available and will be informed no servers are available (see Abbott; col. 8/lines 20-28).

Regarding **claim 33**, does not teach or further define over the limitation in claims 22 respectively. Therefore claim 33 is rejected for the same rationale of rejection as set forth in claims 22.

Regarding **claims 35-36**, do not teach or further define over the limitation in claims 25-26 respectively. Therefore claims 35-36 are rejected for the same rationale of rejection as set forth in claims 25-26.

Regarding **claims 38-39**, do not teach or further define over the limitation in claims 28-29 respectively. Therefore claims 38-39 are rejected for the same rationale of rejection as set forth in claims 28-29.

Regarding **claim 41**, does not teach or further define over the limitation in claim 31 respectively. Therefore claim 41 is rejected for the same rationale of rejection as set forth in claim 31.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. **Claims 27, 30, 32, 37, 40 and 42 rejected under 35 U.S.C. 103(a) as being**

unpatentable over Abbott et al. (US 6,314, 463) in view of Flockhart et al. (US 6,820,260).

Regarding **claim 27**, Abbott disclose the invention substantially, however Abbot does not explicitly disclose the method of claim 22, wherein step (d) comprises providing, by the interface unit, a code to the client, the code receives a preferred wait time or on-hold preference from a user of the client.

Flockhart in the field of the same endeavor teaches a negotiated wait time where the client input is received to the system to provide information during the wait time to the client (see Flockhart; col. 3/line 61-col. 4/line 26). The information received from the client enables the system to provide information based on the clients selection, therefore, enabling Abbott to incorporate client's preferences during the wait time.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Abbott with the teachings of Flockhart because it would enhance the clients experience during the wait time since the client is not waiting idling and is provide information pertaining to the client's selection.

Regarding **claim 30**, Abbott-Flockhart discloses the method of claim 22, wherein step (e) comprises identifying a web page from a plurality of web pages, each of the plurality of web pages providing different content according to different wait times (see Flockhart; col. 4/line 27-65; once the client has selected an applet, the applet will be served to the client. Depending on the wait time, different applets may be selected).

Regarding **claim 32**, Abbott-Flockhart discloses the method of claim 22 further comprising: receiving, by the interface unit, an indication that the user of the client is finished with the on-hold server; and taking the client off on-hold (see Flockhart; col. 4/line 66-col. 4/line 22; when an agent is available, the client is taken off hold).

Regarding **claims 37, 40 and 42**, do not teach or further define over the limitation in claims 27, 30, and 32 respectively. Therefore claims 37, 40, and 42 are rejected for the same rationale of rejection as set forth in claims 27, 30, and 32.

Regarding **claim 23,** Abbott discloses the invention substantially, however Abbott does not explicitly discloses the method of claim 22, wherein the response time is estimated, by the interface unit, from a recurrence relation

$$t'_{(i+1)} = \frac{(i-1)t_{(i-1)} + it_i}{2i-1} + (t'_i - t_i)K$$

where t_i denotes the response time at the i^{th} episode, t'_i denotes the estimated response time at the i^{th} episode, and K is a constant of error correction learned from ongoing traffic.

Coile in the same field of endeavor teaches a formula for calculating the predicted response time using the similar formula as the applicant once the two formulas are under the

similar condition (see Coile; fig. 9, col. 22/lines 37-49). Under the condition where i=1, the applicant formula calculates the estimated response by adding response time of episode 1 with the estimate response time subtracted by the response time of episode one multiplied by K which is a constant of error corrections. Now when the condition of K is zero, the estimated response time is simply the response time of one. Coile under the similar condition, the predicted response time can be calculated by the number of connection machines are one and multiplied the previous response time is subtracted by the aging difference and when the aging difference is a negative value of one, the predicted response time is the previous response time.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Abbott with the teachings of Coile to calculated an estimated response time because it would allow one to detect a responsiveness of a system to enable one to determine if the selected system is capable to perform work due to the response time as suggested by Coile (see Coile; col. 2/lines 40-59).

Regarding **claim 34**, does not teach or further define over the limitation in claim 23 respectively. Therefore claim 34 is rejected for the same rationale of rejection as set forth in claim 23.

Citation of Pertinent Prior Art

Comment [b1]: Have you consulted with any primary?

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dan et al. (NPL) Scheduling Policies for an On-Demand Video Server with Batching.

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers and/or

paragraphs in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses to fully consider the reference in entirety as potentially teachings all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amendments, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and support, for ascertaining the metes and bounds of the claimed invention.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

For the reason above, claims 22-42 have been rejected and remain pending.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to JIMMY H. TRAN whose telephone number is (571) 270-5638. The examiner can normally be reached on 9:00am - 5:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on (571) 272-3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.H.T/

Examiner - Art Unit 2456

/Bunjob Jaroenchonwanit/

Supervisory Patent Examiner, Art Unit 2456